319H TMDL Implementation Project Report

LOWER BANISTER RIVER & TERRIBLE CREEK WATERSHED

Virginia Nonpoint Source MANAGEMENT PROGRAM

Project Location and Background

The Lower Banister River watershed is located in the Dan River Basin in Halifax County, Virginia. This project focuses on Lower Banister River and Terrible Creek watersheds. Combined with Winn Creek, the watersheds are approximately 32,060 acres in size, and land use is predominantly forest and agriculture. Banister River and its tributaries were listed as impaired on Virginia's *2008 Section 303(d) Total Maximum Daily Load Priority List and Report* due to violations of the State's Water Quality Standards for fecal coliform bacteria. The TMDL was completed in May 2013, and a TMDL implementation plan was completed for the watershed in November 2015. The 319-funded implementation project began in November 2018; however, state agricultural cost-share programs began in 2013 .

Implementation Highlights

The Lower Banister River TMDL implementation project is administered by Halifax Soil and Water Conservation District (HSWCD). The table at right shows BMPs implemented from calendar year 2013—2019 in addition to overall implementation goals for the Lower Banister River, Winn Creek, and Terrible Creek. (Note: Winn Creek is not included in the Halifax SWCD project area.) In the agricultural program, this project focuses on implementing agricultural livestock stream exclusion BMPs.

Seven stream exclusion fencing systems have been implemented. Additionally, 31 acres of pasture have been reforested, and permanent vegetative cover has been established on 50 acres of erodible cropland/ pasture and nearly 6 acres of critical areas. In the residential program, two septic systems have been repaired.

(*continued on pg. 2*)

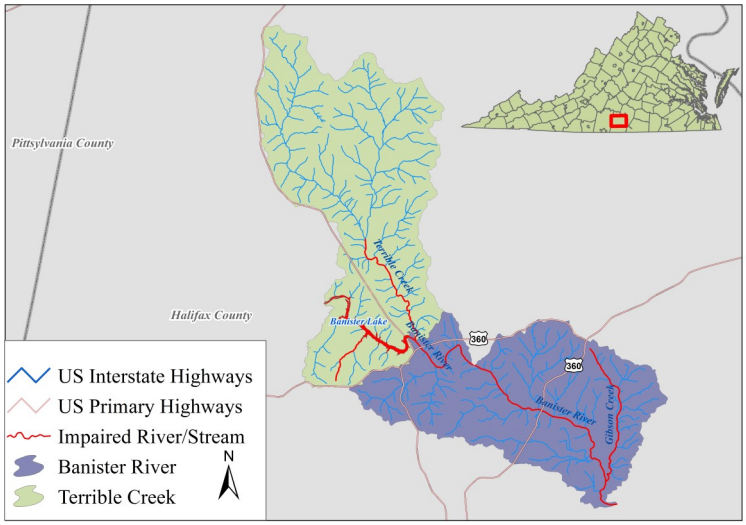


Table 1: Lower Banister River and Terrible Creek BMP Summary: January 2013 - June 2019

Control Measure	Units	Goal	Installed	%
Agricultural				
Stream Exclusion Fencing	S	93	7	8
Pasture Management	A	5,106	0	0
Permanent Vegetative Cover on Erodible Cropland/Pasture	A	N/A	50.38	N/A
Reforestation of Pasture	A	420	30.98	7
Permanent Vegetative Cover on Critical Areas	A	622	5.82	1
Residential Septic				
Septic Tank Pump-out	S	225	0	0
Public Sewer Connection	S	4	0	0
Septic System Repair	S	60	2	3
Septic System Installation	S	27	0	0
Alternative Waste Treatment	S	3	0	0

A = Acres, S = System; Note: BMP counts only include 319-funded and state VACS. NRCS EQIP funded practices are not included.

The Virginia Nonpoint Source Management Program: The Virginia NPS Management Program is managed by the Virginia Department of Environmental Quality (DEQ) and is funded, in part, through grants from the U.S. Environmental Protection Agency, under the Clean Water Act Section 319(h). For more information regarding Virginia's Nonpoint Source Management Program, please visit us on the web at: http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/NonpointSourcePollutionManagement.aspx . An electronic copy of this report can be found here: http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/TMDL/TMDLImplementation/TMDLImplementationProjects.aspx General NPS Program questions? email: npsgrants@deq.virginia.gov

Implementation Highlights—Continued

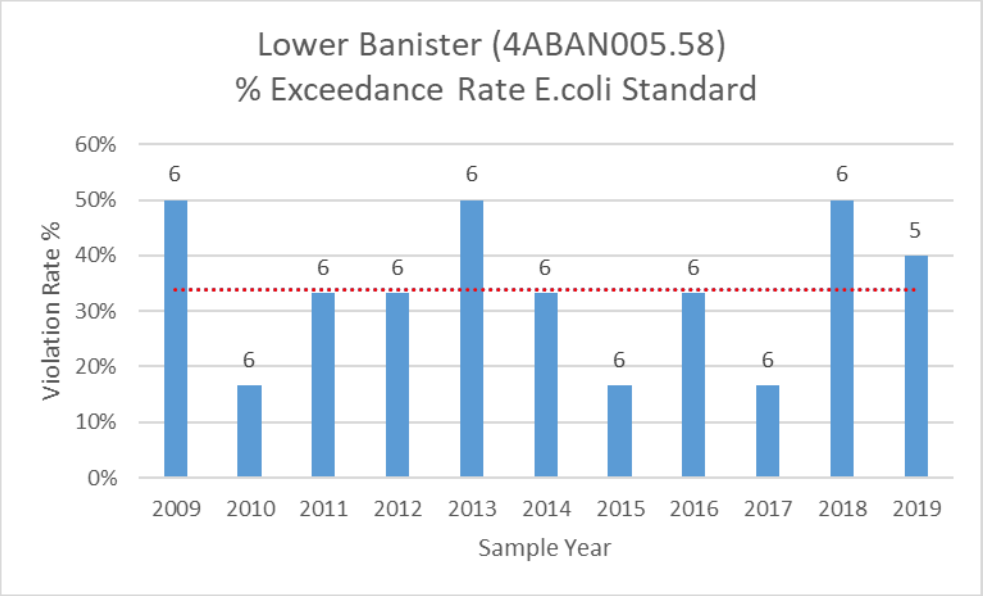
Bacteria reductions from BMP installations are summarized below.

Period	Pathogens (Coliform) (CFU)
July 2013 - June 2019	7.06E+14

Table 2: Pollution Reductions for Banister River Watershed: July 2013—June 2019

Water Quality Monitoring Results

Water quality data collected by DEQ for the period of 2009 through 2019 were analyzed to determine *E. coli* violation rates in the project area for the water quality standard of 235 cfu/100 mL. The bar graph below shows the percent violation rate for samples collected annually at monitoring station 4ABAN005.58, located at the Rt. 360 bridge NE of the Town of South Boston. The number of water quality samples collected is shown above each bar. The linear regression fitted to the data suggests no improvement in water quality. Monitoring over a longer period of time with consistent improvement is needed to corroborate water quality improvements.



Graph 1: ***DEQ E. coli data for Lower Banister (4ABAN005.58), 2009-2019.***

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